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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,542	06/08/2007	Max Aebi	001227/0208	3676

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NEW YORK, NY 10038

EXAMINER

SCHAPER, MICHAEL T

ART UNIT	PAPER NUMBER
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3775

MAIL DATE	DELIVERY MODE
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08/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,542	Applicant(s) AEBI ET AL.	
	Examiner MICHAEL T. SCHAPER	Art Unit 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7 and 9-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>28 Jun 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 19-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 19 Jun 2009.

Applicant's election without traverse of claims 1-5, 7, and 9-18 in the reply filed on 19 Jun 2009 is acknowledged.

Claim Objections

Claims 1-18 are objected to because of the following informalities:

In claim 1, line 2, "**the base plate**" lacks antecedent basis;

In claim 1, line 2, "**the cover plate**" lacks antecedent basis;

In claim 1, line 8, "**the two sections**" lacks antecedent basis; and

In claim 13, line 2, "**comprises**" should read "comprise".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “**(swivel) axle**” in claim 1 / line 10/15/16 is used by the claim to mean “(swivel) *axis*”.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frigg (CA 2332822 from IDS) in view of Landry et al. (US 2003/0233145).

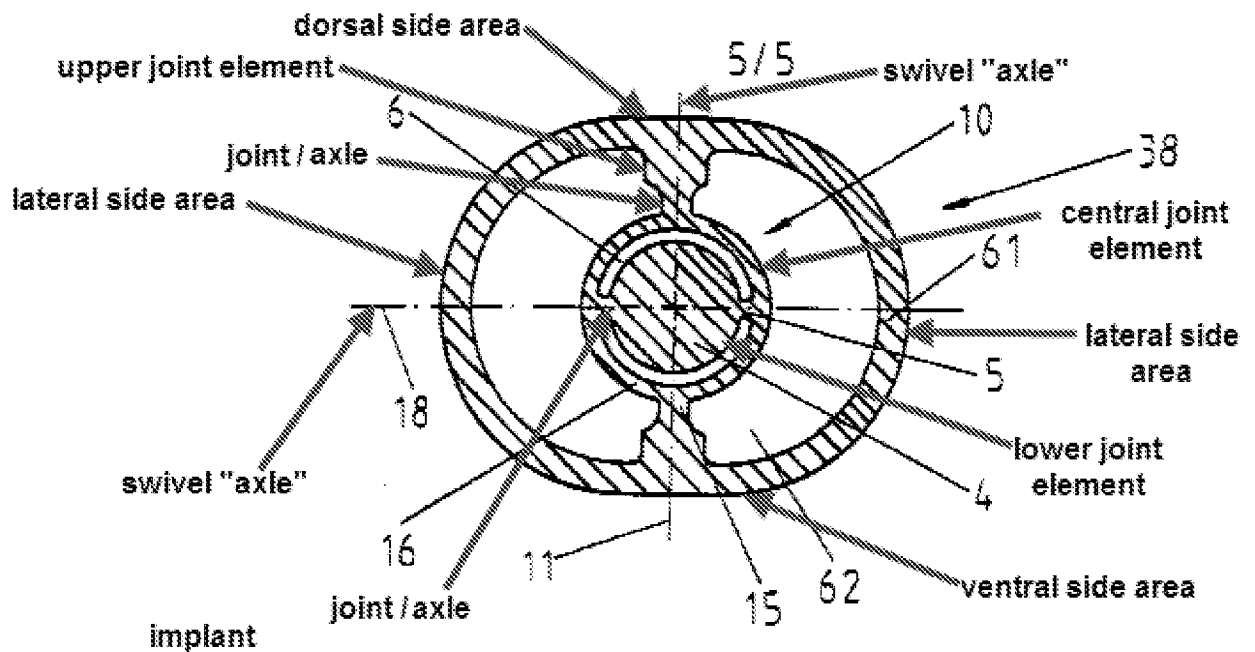


Fig. 6

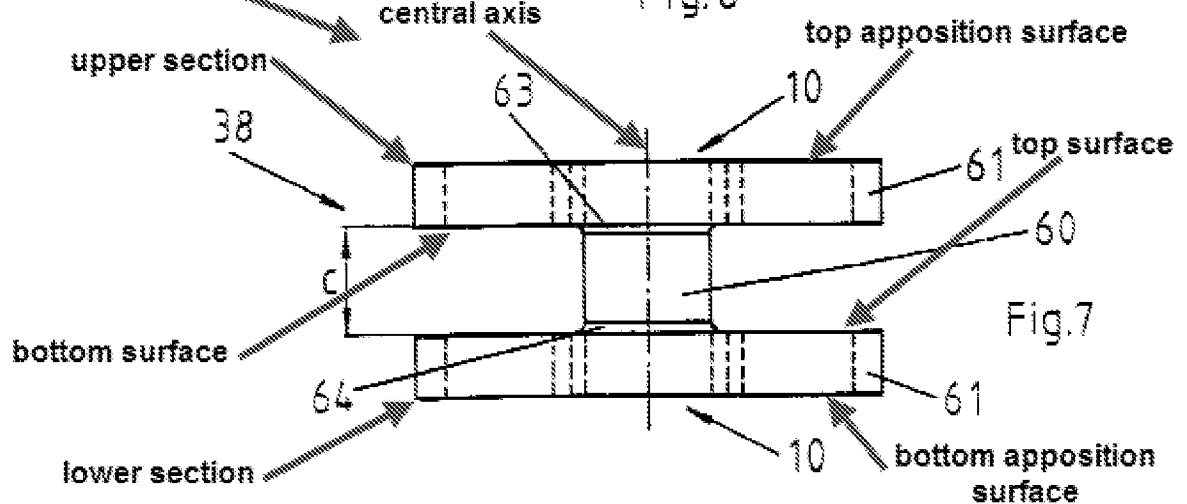


Fig. 7

Frigg discloses an intervertebral implant (see examiner-annotated Figs. 6-7 above) comprising a central axis, an upper section, suitable for laying onto the base plate of a vertebral body lying above, and a lower section suitable for laying onto the cover plate of a vertebral body lying below, wherein the upper section has a ventral side area, a dorsal side area, two lateral side areas, a top apposition surface, and a bottom

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surface; the lower section has a ventral side area, a dorsal side area, two lateral side areas, a bottom apposition surface, and a top surface; and the two sections are moveable in relation to each other via two joints arranged between the two sections, wherein each of the joints has a swivel axle and the two swivel axles are arranged transversely or perpendicular to each other; the two joints comprise an upper joint element connected with the upper section, a central joint element, and a lower joint element connected with the lower section; the central joint section is connected with the lower joint section by means of at least one axle coaxial to the swivel axle and rotating around the swivel axle and with the upper joint section by means of at least one axle coaxial to the swivel axle and rotating around the swivel axle; wherein the central joint element comprises a frame; wherein the central joint element is in the form of a cross; wherein the central joint element is in the form of an angle.

Frigg discloses the claimed invention except for a means being provided that is suitable for causing temporary blocking of the mobility of the two sections around the joint, whereby that the means comprises an insert with a lower end and an upper end and a depression in the surfaces at each of the two sections, which are open on the ventral side areas, and that the insert with its ends can be inserted into each of the depressions; wherein the means keeps the two sections, measured at their ventral side areas, at a fixed distance from each other; wherein the means can be attached to the two ventral side areas of the two sections; wherein the depressions are dovetail guides and the ends on the insert are arranged complementary to these dovetail guides; wherein the dovetail guides are tapered from the ventral side areas towards the dorsal

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side areas; wherein the means comprises two insert pieces parallel to the lateral side surfaces, which can be attached to the surfaces facing each other; wherein the insert can be attached to one of the two sections by means of a screw in a way that can be released.

Landry discloses a means (14, see FIG. 1, in view of [0094])) being provided that is suitable for, *i.e.* capable of, causing temporary blocking of the mobility of the two sections around the joint, whereby that the means comprises an insert (14) with a lower end and an upper end and a depression (32,32) in the surfaces at each of the two sections, which are open on the ventral side areas, and that the insert with its ends can be inserted into each of the depressions (see FIG. 1); wherein the means keeps the two sections, measured at their ventral side areas, at a fixed distance from each other; wherein the means can be attached to the two ventral side areas of the two sections; wherein the depressions are dovetail guides (see FIG. 1) and the ends on the insert are arranged complementary to these dovetail guides (again, see FIG. 1); wherein the dovetail guides are tapered from the ventral side areas towards the dorsal side areas (see FIG. 5); wherein the means comprises two insert pieces (14,14) parallel to the lateral side surfaces, which can be attached to the surfaces facing each other; wherein the insert can be attached, *i.e.* is capable of being attached) to one of the two sections by means of a screw in a way that can be released for providing a lordotic angle during insertion ([0094]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the device of Frigg with a means being provided that is

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suitable for causing temporary blocking of the mobility of the two sections around the joint, whereby that the means comprises an insert with a lower end and an upper end and a depression in the surfaces at each of the two sections, which are open on the ventral side areas, and that the insert with its ends can be inserted into each of the depressions; wherein the means keeps the two sections, measured at their ventral side areas, at a fixed distance from each other; wherein the means can be attached to the two ventral side areas of the two sections; wherein the depressions are dovetail guides and the ends on the insert are arranged complementary to these dovetail guides; wherein the dovetail guides are tapered from the ventral side areas towards the dorsal side areas; wherein the means comprises two insert pieces parallel to the lateral side surfaces, which can be attached to the surfaces facing each other; wherein the insert can be attached to one of the two sections by means of a screw in a way that can be released in view of Landry for providing a lordotic angle during insertion.

Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frigg (CA 2332822 from IDS) in view of Landry et al. (US 2003/0233145) further in view of Michelson (US 2002/0052656 from IDS).

Frigg in view of Landry disclose the claimed invention except for wherein the upper and the lower sections each comprise at least two drill holes running through from the ventral side areas to the apposition surfaces with longitudinal axes for receiving bone fixation devices; wherein the longitudinal axes of the drill holes make an angle γ with the central axis; wherein the angle γ lies in a range between 20° and 65°; wherein

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the longitudinal axes of the drill holes as seen from the ventral side areas diverge from the inner surfaces against the apposition surfaces; wherein the drill holes are conically tapered towards the apposition surfaces; wherein the drill holes have an internal thread.

Michelson discloses an intervertebral implant (see FIGS. 42-49) wherein the upper and the lower sections each comprise at least two drill holes (see FIG. 42) running through from the ventral side areas to the apposition surfaces (see FIG. 45) with longitudinal axes for receiving bone fixation devices; wherein the longitudinal axes of the drill holes make an angle γ with the central axis (inherent, see FIG. 45); wherein the angle γ lies in a range between 20° and 65° (angle, from FIG. 45 appears to be $\sim 45^\circ$); wherein the longitudinal axes of the drill holes as seen from the ventral side areas diverge from the inner surfaces against the apposition surfaces (see FIG. 43); wherein the drill holes are conically tapered towards the apposition surfaces (implied, see FIG. 46 in view of FIG. 49); wherein the drill holes have an internal thread (see FIG. 46) for securedly fastening the implant to the vertebral bodies ([0157]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the device of Frigg in view of Landry with an implant wherein the upper and the lower sections each comprise at least two drill holes running through from the ventral side areas to the apposition surfaces with longitudinal axes for receiving bone fixation devices; wherein the longitudinal axes of the drill holes make an angle γ with the central axis; wherein the angle γ lies in a range between 20° and 65° ; wherein the longitudinal axes of the drill holes as seen from the ventral side areas diverge from the inner surfaces against the apposition surfaces; wherein the drill holes

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are conically tapered towards the apposition surfaces; wherein the drill holes have an internal thread in view of Michelson for securedly fastening the implant to the vertebral bodies.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. SCHAPER whose telephone number is (571)270-7413. The examiner can normally be reached on M-F, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Barrett can be reached on (571)272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. T. S./
Examiner, Art Unit 3775

/Thomas C. Barrett/
Supervisory Patent Examiner, Art
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